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REMARKS

Favorable reconsideration and allowance of the claims of the present application are respectfully requested.

In the present Office Action, claims 40-45 are rejected under 35 U.S.C. §112, as being indefinite. In particular, the Examiner has asserted that the last two lines of claim 40 render it indefinite, alleging that it is "not clear how the doped Si-containing electrode of the capacitor can be comprised of an intrinsic base polysilicon layer of a bipolar device." In response, Applicants have amended claim 40 to recite that "said bottom electrode, said high-k dielectric and a portion of said doped Si-containing electrode form a capacitor and another portion of said doped Si-containing electrode comprises an intrinsic base layer of an abutting bipolar device." As such, it is respectfully believed that this rejection should be overcome.

In addition, claim 40 is objected to, with the Examiner suggesting that on line 2, "isolation regions that are" should be changed to "an isolation region that is". In response to this objection, Applicants have amended claim 40 in the manner suggested by the Examiner in the present Office Action. Therefore, it is also believed that this objection to claim 40 should be overcome.

In addition to the above formal rejection and objection, claims 40 and 42-44 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Hayashi (U.S.P. 5,633,181) in view of Basceri et al. (U.S.P. 6,682,969). And claims 41 and 45 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Hayashi in view of Coolbaugh et

al. (U.S.P. 6,800,921).

Turning to the first §103(a) rejection based on the combination of Hayashi and Basceri, Applicants submit that the applied combination of references does not render claims 40 and 42-44 unpatentable, as these references, individually or combined, do not teach or suggest Applicants' claimed poly-poly capacitor. Specifically, Hayashi does not teach or suggest a poly-poly capacitor which includes a bottom polysilicon electrode, a high-k dielectric having a dielectric constant of greater than about 8 formed on a portion of the bottom electrode and a doped Si-containing electrode on the high-k dielectric, where a portion of the doped Si-containing electrode is a top electrode of a capacitor and another portion comprises an intrinsic base layer of an abutting bipolar device. This §103(a) rejection also fails because there is no motivation in Basceri, et al. which suggests modifying the Hayashi structure to include as a dielectric a dielectric material having a dielectric constant greater than about 8. The cited portion of Basceri et al., i.e. Col. 6, lines 10-11, merely describes that a material with a dielectric constant greater than 9 can be substituted for a "conventional dielectric material" having a dielectric constant of approximately 7, in the Basceri et al. structure. The structure is a conductor-insulator-conductor sandwich for a DRAM integrated circuit. Thus, the §103(a) rejection is improper since the prior art does not suggest such a dramatic modification. The law requires that a prior art reference provide some teaching, suggestion or motivation to make a modification. In re Vaeck, 20 U.S.P.Q. 2d 1438, 1442 (Fed Cir. 1991).

"The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability

of the modification." In re Fritch, 23 USPQ 2d 1780, 1783-84 (Fed. Cir. 1992).

It is respectfully submitted that there is no suggestion in the references of Applicants' poly-poly capacitor as recited in the amended claims. As such, it is believed that claims 40 and 42-44 are not obvious from the references.

With respect to the second §103(a) rejection, Hayashi is deficient for the same reasons as discussed above concerning the first §103(a) rejection. To reiterate: Hayashi does not teach or suggest a poly-poly capacitor which includes a bottom polysilicon electrode, a high-k dielectric having a dielectric constant of greater than about 8 formed on a portion of the bottom electrode and a doped Si-containing electrode on the high-k dielectric, where a portion of the doped Si-containing electrode is a top electrode of a capacitor and another portion comprises an intrinsic base layer of an abutting bipolar device. Coolbaugh et al. does not alleviate the above defects, as it is merely cited as showing the use of poly SiGe in capacitor structures.

It is respectfully submitted that there is no teaching or suggestion in the prior art of Applicants' claimed poly-poly capacitor structure. Thus, all the claims of the present application are not obvious from the combinations of applied references cited in the present Office Action.

Based on the above amendments and remarks, the §103 rejections citing the combined disclosures of Hayashi and Basceri et al. or Coolbaugh et al. have been obviated; therefore reconsideration and withdrawal of the instant §103 rejections are respectfully requested.

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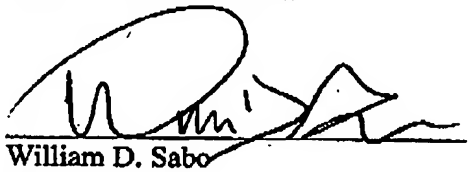
Thus, in view of the foregoing amendments and remarks, it is respectfully believed that the present case is in condition for allowance, which action is earnestly solicited.

Respectfully submitted,

For: Arne W. Ballantine et al.

By: 

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